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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,757

10/24/2006

Shigetaka Goto

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EXAMINER

NGUYEN, SIMON

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

05/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,757	Applicant(s) GOTO ET AL.	
	Examiner SIMON D. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 6 recite the limitation "the first and second information" in determination step for determining whether....according to the first and second information based on the count information of the countdown IF counting step. There is insufficient antecedent basis for this limitation in the claim. Furthermore, the Applicant fails to define what are the first and second information about in the claims?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-2, 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 7,076,221 B2).

Regarding claim 1, Lee discloses an IF counter for counting IF signal (abstract) for a prescribed time period (window period) (column 2 lines 26-54) or counting value for a predetermined time (column 3 line 17) , comprising: upper limit presetting for providing a desired upper limit of a count value as an initial value (setting a preset value “c”, for example) at the time of count (column 2 lines 54-67, column 5 line 41 to column 6 line 18); IF counting time period determination for determining a time period during which the IF signals are counted (column 2 lines 26-67); countdown IF counting for counting down (column 3 lines 22-23,) the initial valued preset of the upper limit presetting for the time period determined in the IF count time period determination by the count value (column 3 lines 6-23, column 5 line 41 to column 6 line 18); IF count limit difference presetting for providing information about a difference between desired upper and lower limits of the count value (column 2 lines 45-53, column 5 line 41 to column 6 line 18); comparing the information about the difference between the IF count limit values provided in the IF count limit difference presetting with information based on count information of the countdown IF counting (column 4 lines 42-59, column 5 lines 13-22, column 5 line 38 to column 6 line 18); and determining whether the count value is between the desired upper and lower limits according to information based on the count information of the countdown IF counting and a result of the comparison (column 5 line 40 to column 7 line 8, column 8 line 20-67).

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Regarding claim 2, Lee further disclose the information is lower-order m bits of count information in the countdown IF counting and higher-order bits of the count information (column 3 lines 3-5, column 5 line 46 to column 6 line 40, column 8 lines 27-47).

Regarding independent claims 4-6, these claims comprise limitations as claimed in independent claim 1, therefore, these claims are rejected for the same reason as set forth in claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 7,076,221).

Regarding claim 3, Lee further discloses dividing frequency by the ratio of 160 (column 7 lines 18-19, 35-37, and 54-64). However, Lee fails to teach a dividing ratio as claimed.

It should be noted that a frequency divider used in a communication device as taught by Lee obvious can be divided one of dividing ratios as claimed which is known to those skilled in the art for obtaining a desired frequency in order to improve the

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system performance. Furthermore, it is well known in the communication art, one of frequency dividing ratios $1/2$, $1/4$, .. $1/32$ can be used in a communication receiver.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kimura (4, 291,414) and Close (3,753,119), each discloses an IF counter for counting IF signals that is similar with the Applicant's invention (see abstract, and description).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc M. Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 13, 2009

/SIMON D NGUYEN/

Primary Examiner, Art Unit 2618